



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045 • TDD (561) 697-2574
Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680 • www.sfwmd.gov

RES 16-08

April 26, 2001

TIME SENSITIVE/VIA TELEFACSIMILE

Colonel James G. May
District Engineer, U.S. Army Corps of Engineers
Jacksonville District
CESAJ-DE
P.O. Box 4970
Jacksonville, Florida 32232-0019

Subject: Request for a Temporary Deviation to the Regulation Schedule for Water Conservation Area No. 3A.

Dear Colonel May:

This is a request for a deviation from the regulation schedule for Water Conservation Area 3A (WCA 3A), pursuant to Section 7-14 of the Central and Southern Florida Project (C&SF Project) Water Control Plan for Water Conservation Areas, due to extreme region wide drought conditions being experienced in South Florida. A deviation, as outlined herein, is essential to ensure that the South Florida Water Management District (District), as the local sponsor and regional water manager, has sufficient flexibility to manage the C&SF Project for the protection of public water supplies and other water resources during this unprecedented event.

The deviation proposed in this letter is designed to strike a balance between water supply and environmental needs, protecting wellfields and conserving critical water supplies, while minimizing and mitigating for adverse impacts to the environment through limitations on the deviation timeline and extent of acceptable drawdown. Whether and to what extent the District utilizes the requested deviation will depend upon the drought conditions we are faced with over the coming months.

The need for water deliveries from WCA 3A are projected to increase over the next several months in order to prevent significant salt water intrusion due to falling ground water levels in the coastal area east and south of WCA 3A. Without Lake Okeechobee supplemental water supplies, and with WCA 3A levels imminently below the minimum floor, there will be no regional water supplies available to protect against saltwater intrusion or to continue to meet any of the other purposes of the C&SF Project in that area.

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As a result, it is crucial for the District to immediately increase the availability of regional water supplies through all available measures, which include this requested deviation.

District Proposed Deviation for WCA-3A.

The current WCA-3A regulation schedule has a minimum water level, or "floor elevation" of 7.5 feet, NGVD, in the L-67A borrow canal and measured at the upstream side of S-333 (see **Exhibit 1**). The District requests a deviation shown in **Exhibit 1** and described as follows. Beginning on May 1, 2001, the floor linearly decreases from 7.5 ft to 6.5 ft on June 30. The floor stays at 6.5ft until August 1, at which time the floor linearly increases back to 7.5 ft on October 1, 2001. If stages fall below this line, any release volumes from WCA-3A will be limited to equal inflow volumes from another source.

Modeling Results

This deviation request is based on information gained from hydrologic modeling of the region and current and predicted drought conditions. Staff in our Hydrologic Systems Modeling Department performed a simulation using the South Florida Water Management Model (SFWMM) in position-analysis mode. The simulation used the proposed WCA-3A regulation schedule deviation, and also included the previously requested deviations to the WCA-1 and WCA-2A regulation schedules. Results were compared with a simulation that had all of the same components except for the WCA-3A deviation. (See **Exhibit 2**, Modeling Technical Results).

At this time, the WCA 3A water level is 7.95 feet NGVD (S-333 headwater), only .45 feet over the minimum floor elevation of 7.5 feet NGVD. Water levels in WCA 3A have been rapidly declining without rainfall. As a result, without incurring a significant level of rainfall within the coming two weeks, the water elevation is expected to recede below the minimum floor.

Lake Okeechobee, the sole remaining backup water supply for WCA 3A, is at an all time low of 9.7 feet NGVD. In addition to the extremely low availability of regional water supplies, the ability of the District to convey water from Lake Okeechobee to the south is extremely limited. Simply put, if the existing drought conditions continue it will become virtually impossible to provide supplemental water from Lake Okeechobee to WCA 3A over the next few weeks.

Hydrologic simulation results indicate that the deviation to the WCA-3A schedule will delay the need for water supply deliveries from Lake Okeechobee, which may ultimately be impossible anyway. This will also help mitigate harm to Lake Okeechobee that may occur due low water levels during this dry season. Results also indicate a slight increase in the amount of supply delivered to eastern Miami-Dade County to help recharge wellfields

and prevent saltwater intrusion. However, water levels in WCA 3A are projected to decline primarily from the drought conditions.

Current Water Conservation Area 3 Conditions

Current ecological conditions in WCA-3 are documented in the attached **Exhibit 3**, 'Ecological Impacts of Drought in the Water Conservation Areas'. In summary, the report investigates variables including current muck fire potential based on Minimum Flows and Levels (MFL) criteria and wading bird colony suitability and foraging indices. Analysis presented in this report indicates a high potential for muck fires to occur in northern WCA-3A from natural drought conditions. Muck fire potential decreases moving south through WCA-3A coincident with an increase in water levels. In contrast, the risk of muck fires is greater in the southern end of WCA-3B due to influence of the L-29 canal stages and lower groundwater elevations. There are no known active wading bird nesting colonies in WCA-3 at present. A large wood stork colony immediately south of Tamiami Trail and WCA-3B contains approximately 900 nests. Regions of southern and central WCA 3A most likely offer some of the best foraging habitat for this nesting colony. The risk of impact of the deviation over and above the impacts from the natural drought conditions is not quantifiable.

Given the extreme drought conditions, and the critical need to protect water supplies, immediate implementation of this deviation is critical. If interagency consultation is necessary under the Endangered Species Act, the District requests that it be done on an emergency basis pursuant to the Code of Federal Regulations. It is imperative that this request, and any associated Endangered Species Act consultations, be processed on an expedited basis.

Current/Future Water Conservation Efforts

To preserve water supplies and ensure the most efficient distribution and allocation of that dwindling water supply, the District has implemented some unprecedented water conservation measures:

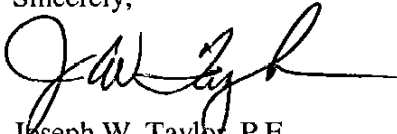
- In September of 2000, a water supply emergency warning was issued and the Emergency Operations Center was activated. (See **Exhibit 4, attachment 7**)
- In November and December of 2000, and again in January 2001, water restrictions of various levels and regions were first put into effect. (See **Exhibit 4, attachments 8, 9, 10, 11**)
- On March 15, 2001, District's Governing Board directed staff to develop a Phase III water restrictions implementation plan. (See **Exhibit 4, attachment 12**)
- On March 27, 2001, a comprehensive drought management initiative was adopted by the Governing Board for immediate implementation. That initiative, included impoundment and diversion system plans to decrease water demands by 50%. (See **Exhibit 4, attachment 13**)

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- On March 29, 2001, District requested a temporary deviation for Water Conservation Area WCA-1. **(See Exhibit 4)**
- On April 4, 2001, District requested temporary deviations for Water Conservation Area WCA-2 and the South Dade Conveyance System. **(See Exhibit 5)**

If you have any questions or comments, please call Mr. Tommy Strowd, Director of the Operations Controls Division, at 561-682-6796. Thank you for your prompt attention to this emergency request.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Taylor", with a long horizontal flourish extending to the right.

Joseph W. Taylor, P.E.
Deputy Executive Director
Water Resources Operations
South Florida Water Management District

JWT/tk
Enclosure

c: T. Strowd

WCA3A Regulation Schedule and Floor

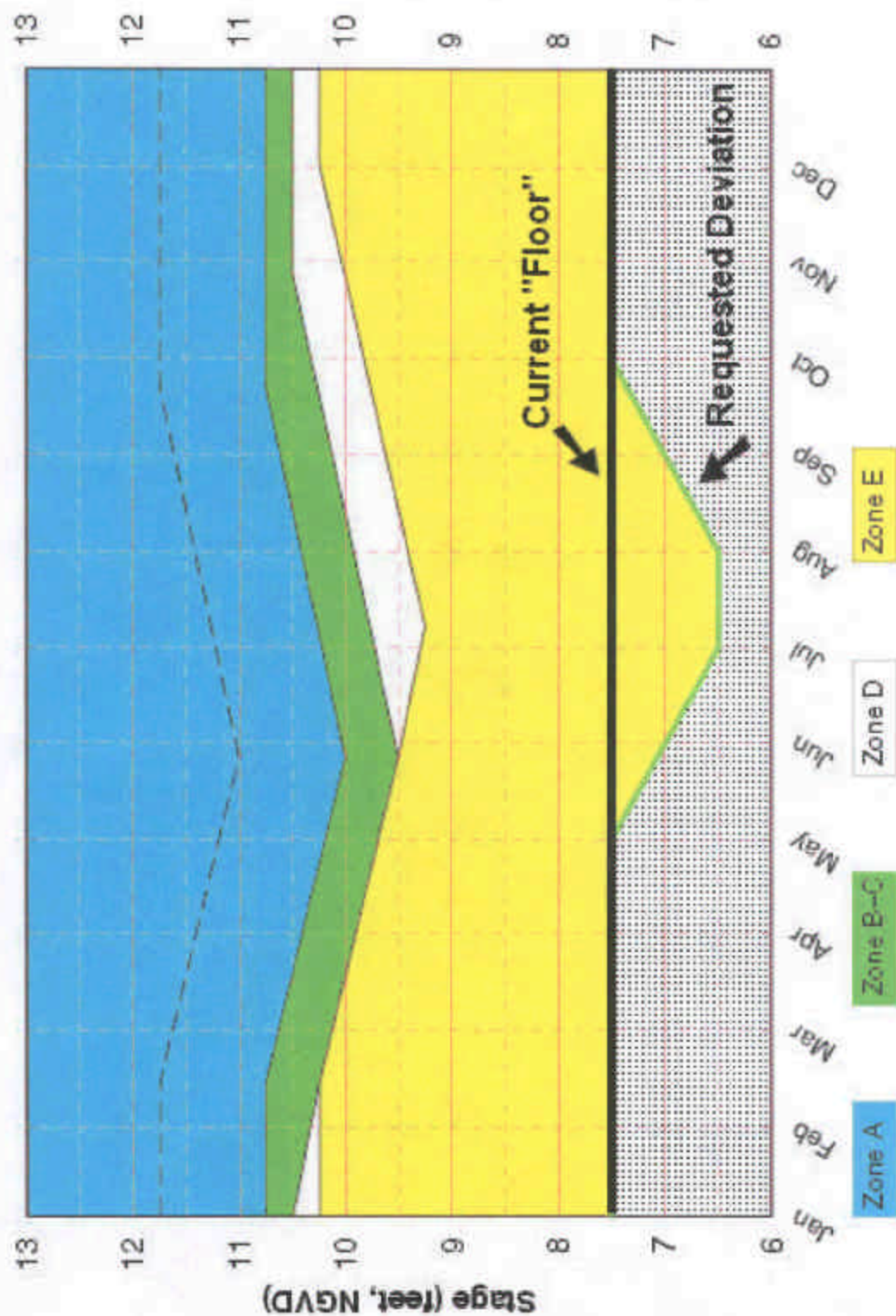


EXHIBIT 1